



# Overview

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# Background

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- Rapid growth of the World Wide Web and new developments in information and communication technologies (Web 2.0).

Numerous projects:

- digital pay services, information kiosks
- and one stop points for citizens.
  
- 19 percent of all governments worldwide providing online services (West, 2005).
  
- There is not a single government among the 192 countries of the UN that do not have some sort of eGov service (Ozkan & Kanat, 2011).



# E-Government Definition

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- The use of information and communication technologies and its application by the government for the provision of information and public services to the people (UN E-Government Survey, 2014, p.2).
  
- Services can be geared towards citizens, businesses and even other governments (Lean et al., 2009; Wang & Liao, 2008).
  
- eGov is classified according to the interactions with its stakeholders and the three main types of eGov services are:
  - Government to Citizen (G2C),
  - Government to Business (G2B)
  - Government to Government (G2B) (Carter & Belanger, 2003; Wang & Liao, 2008).

# Benefits of eGov

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- Enhance citizens' convenience (Layne & Lee, 2001).
- Increase effectiveness and efficiency of government services through improved connectivity and better access (Lin et al., 2011; Yildiz, 2007).
- Greater transparency and accountability in government.
- Reduces cost and improves service delivery.

# Mauritius, E-Readiness

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Table 1.3. Top 20 countries in Africa

<i>Country</i>	<i>Level of Income</i>	<i>EGDI</i>	<i>2014 Rank</i>	<i>2012 Rank</i>	<i>Change in Rank</i>
High EGDI					
Tunisia	Upper Middle	0.5390	75	103	↑ 28
Mauritius	Upper Middle	0.5338	76	93	↑ 17
Egypt	Lower Middle	0.5129	80	107	↑ 27
Seychelles	Upper Middle	0.5113	81	84	↑ 3
Morocco	Lower Middle	0.5060	82	120	↑ 38

- ❖ The second top most E-Government ready country in Africa behind Tunisia (UN E-Government Survey, 2014, p.25)
- ❖ Mauritius is the first country in Sub Saharan Africa to obtain a high score on the United Nations E-Government Development Index for 2014.

# Lack of participation

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- The island suffers from a lack of participation by its citizens in eGov services.
- The high e-readiness index
- “Mauritius is e-ready but the Mauritians are not” Shalini (2009).
- ITU ICT Development Index 2013-2014 shows that ICT usage index in Mauritius is far below that of ICT access and skills.
- A severe challenge to governments and effective strategies should be used to improve engagement, hence adoption (UN report)

# Low Adoption

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- Focussing on technological part neglecting sociological part of technology (Rowley, 2011; Savoldelli et al., 2014).
- Low in both developed and developing countries despite the ever increasing eGov capabilities and services (Zhang et al., 2011; Tan et al. 2008).
- Diffusion of eGov has not gained impetus or produced the desired outcomes (Zhang et al., 2011).
- The adoption rates of eGov are disappointingly low (Tan et al., 2008).

# Importance of Adoption

- The adoption and success of eGovernment services depends on their citizens' willingness to adopt these services (Shareef et al., 2011; Shareef et al., 2009).
- A lack of eGov adoption hampers the realisation of benefits of these facilities (Zhao, Shen, & Collier, 2014).
- This results in unsuccessful services and is a waste of tax payers' money (Ozkan & Kanat, 2011).
- If online services are not employed, there will be no electronically processed documents, resulting in no gains in effectiveness and efficiency (Salvoldelli et al., 2014).
- Moreover, Venkatesh et al. (2008) state that for any technology to be fruitful, it has to be used.

# Research Questions

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- What factors influence the intention to use eGov services in Mauritius?
- What impact do acceptance predictors have on behavioural intention to adopt eGov services in Mauritius?

# Major Issues in Sub-Saharan Africa

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- The UN E-Government survey demonstrates that 16 out of 54 African countries are at the bottom 10 per cent of the world ranking.
- Connectivity is still nearly nonexistent in rural sub-Saharan regions where 70 percent of the population reside (UN E-Government Survey, 2014).
- Inefficient public delivery systems
- Ineffective information management practices (Adeyemo, 2011)
- Lacking of a clear strategy and evaluation frameworks (Kaisara & Pather, 2009)
- Digital divide (Moloi & Mutala, 2007)
- Deficient infrastructure and budgetary constraints (Carter & May, 2001)
- Adult population illiteracy
- Lowest PC penetration in the world (Lin et al., 2011)

# Mauritian context

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- 88 to 89 percent adult literacy rate. Improved its ranking from 93 in 2012 to 76 in 2014 (UN E-Government Survey, 2014).
- 735,000 internet subscriptions. 58.3, number of internet subscriptions per 100 inhabitants.
- 579,000 broadband internet subscriptions in 2014.
- 31 percent of broadband internet subscriptions (fixed line)
- 68.6 percent have access through a mobile device.
- Proportion of households with a computer is 53.1 percent and those with internet access are 52 percent.
- eGov portal [www.govmu.org](http://www.govmu.org).

# E-Government in Mauritius

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- 139 services to choose from and they are categorised according to Ministries and Departments (UN E-Government Survey, 2014). eGov strategy 2013-2017
- eServices on the mobile platform
- Implementation of online payment facilities
- Help desk services and a call centre (Mauritius eGov Strategy, 2015).
  
- Usage of eGov services is still lacking.
- The eGov services in Mauritius are only form based with limited interactivity (Shalini, 2009)
  
- eGov websites in sub-Saharan Africa are under developed (Mutala, 2008).

# E-Government Adoption

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Several studies have investigated the adoption of eGov services based on technology acceptance models such as

- Technology Acceptance Model (Davis, 1989; Davis, et al., 1989)
- Theory of Reasoned Action (Fishbein & Ajzen, 1975)
- Theory of Planned Behavior (Ajzen, 1991)
- Innovation Diffusion Theory (Rogers, 1995)
- eGovernment Adoption Model (Sharrif et al., 2011)
- Unified Theory of Use and Acceptance of Technology 2 (Venkatesh et al., 2012).

# Technology Acceptance

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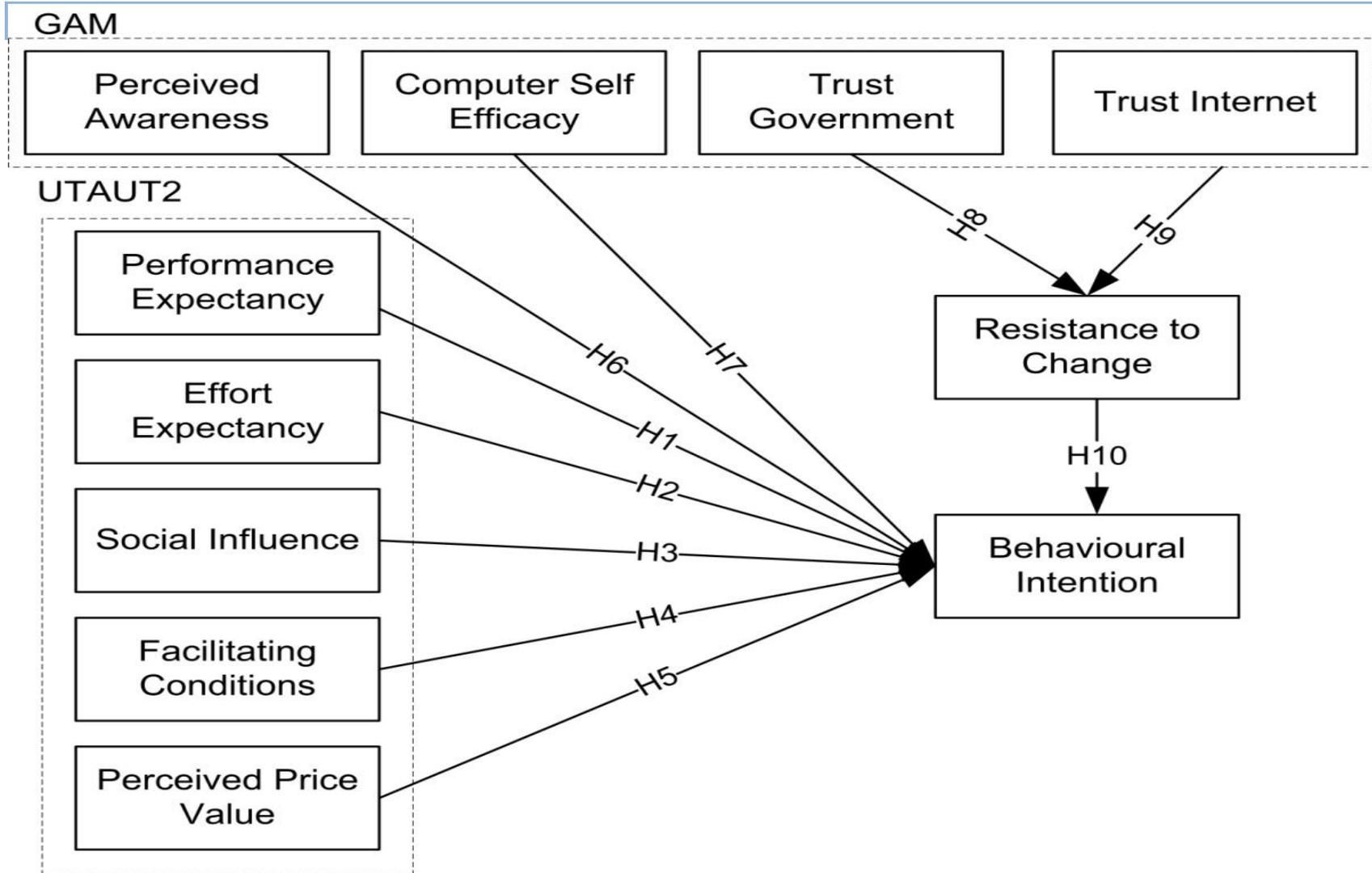
- There is no standard definition of acceptance in the literature.

Lallmahomed, Ab. Rahim, Ibrahim, & Rahman (2011) contend that technology acceptance refers to the study of

- (1) factors that would cause an individual to accept or reject a technology.
- (2) factors that would improve an individual uptake of a technology.
- (3) factors that would predict future utilization of a technology.

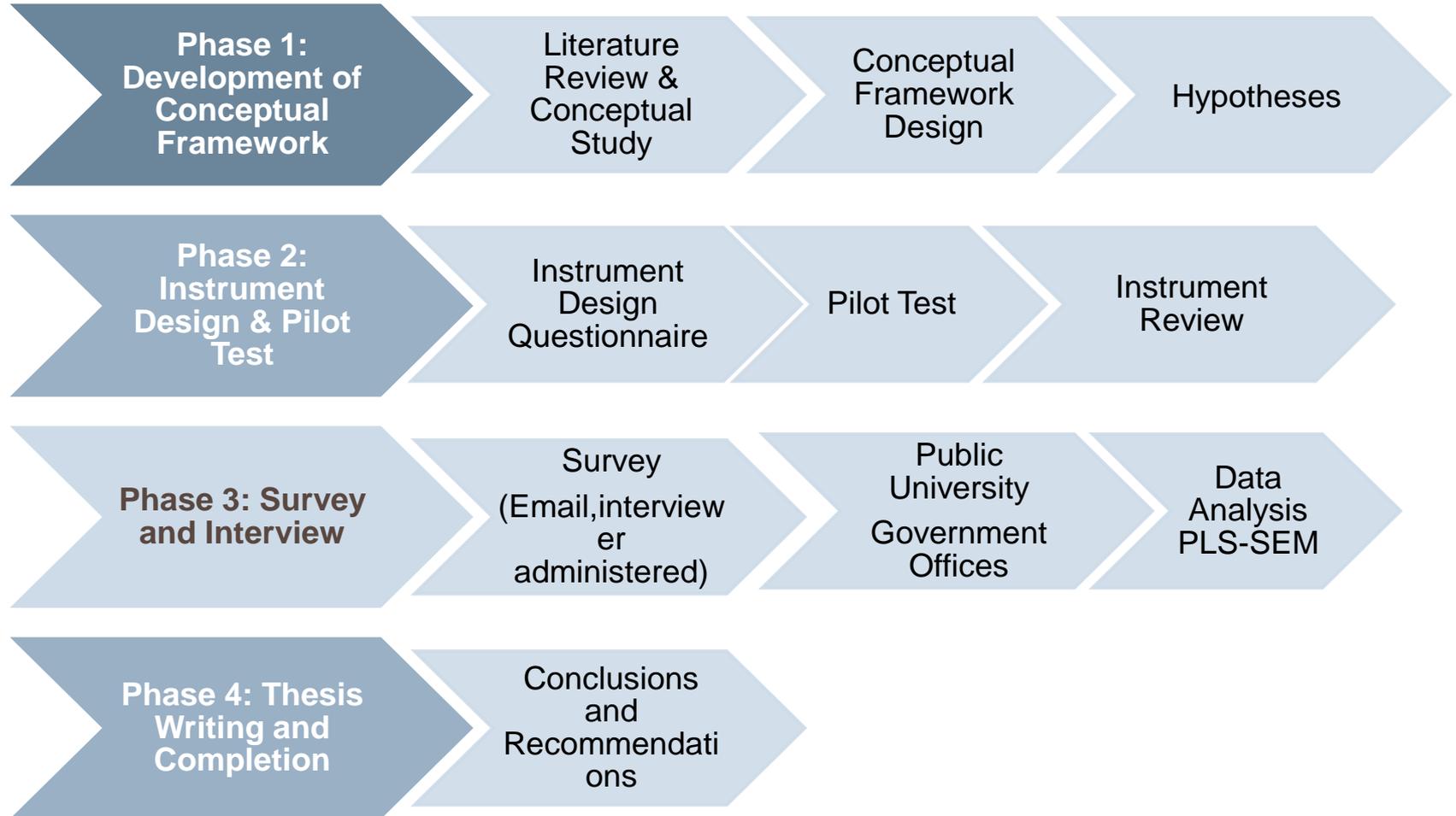
# Theoretical Model

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# Research Methodology

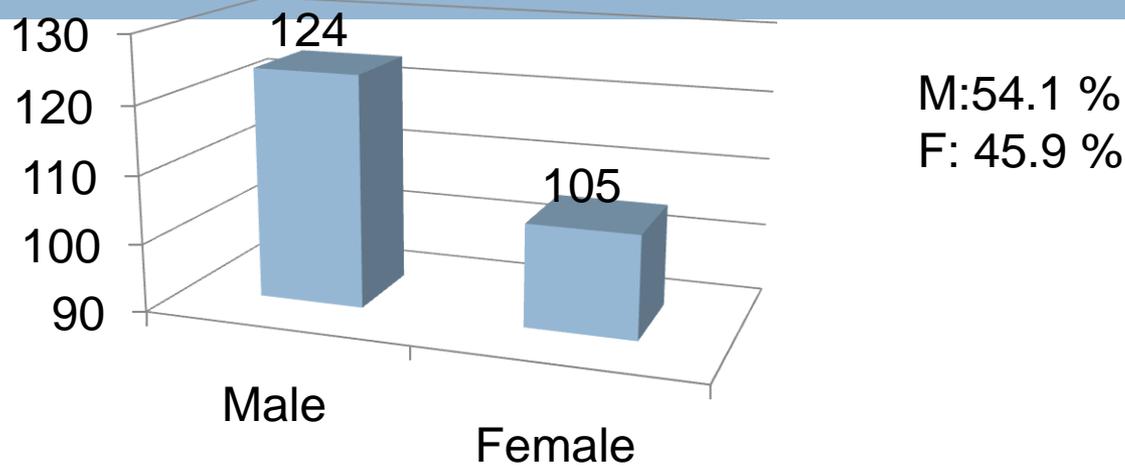
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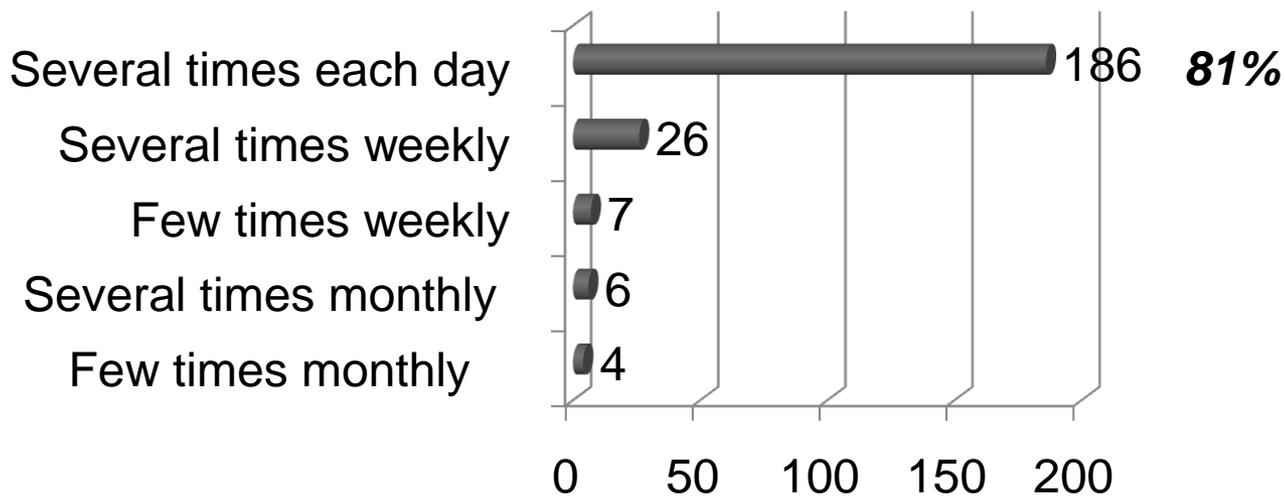
# Respondent Demographics

## Gender

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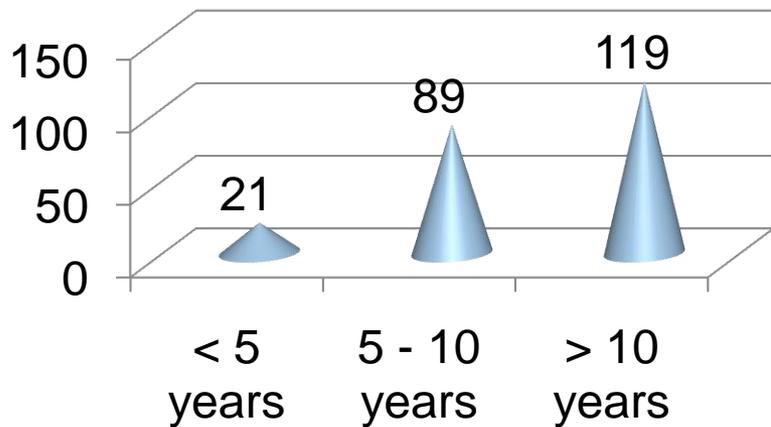
## Internet Use



# Respondent Demographics

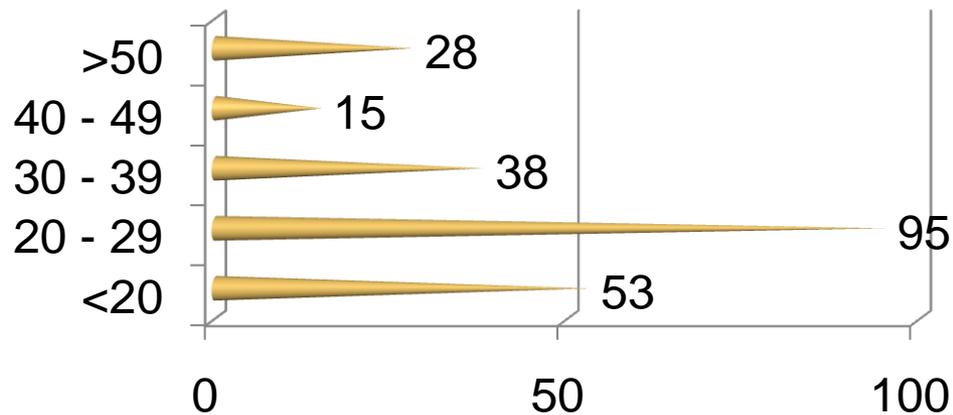
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## Experience (years)



52% > 10 yrs  
39% 5 – 10 yrs

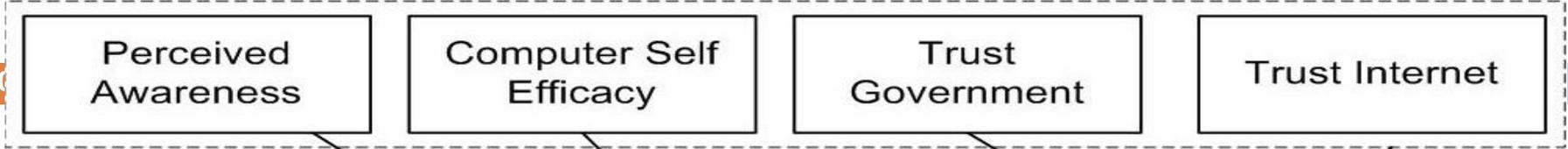
## Age (years)



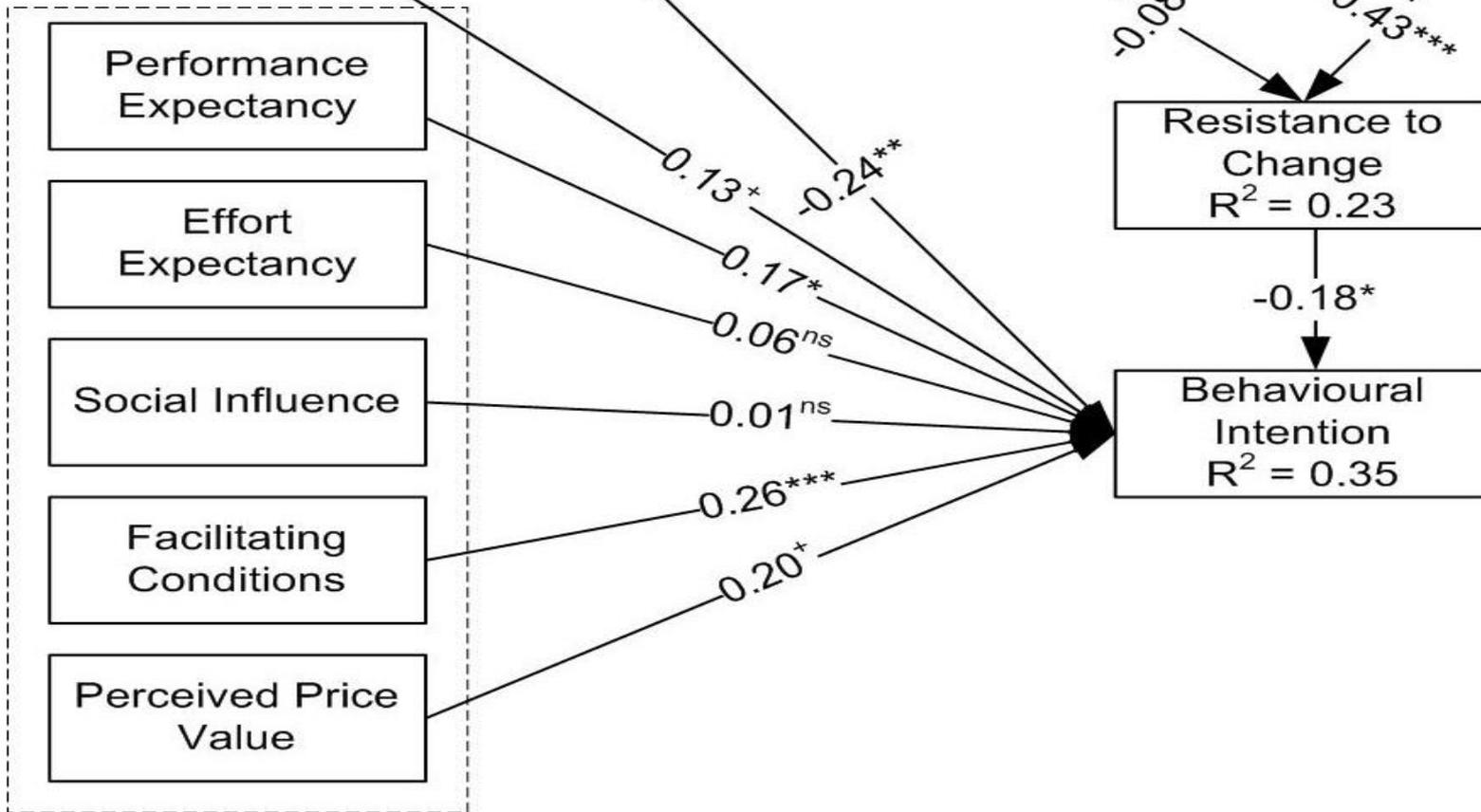
20- 29: 38.9%  
<20: 52.0%

# Structural Model

GAM



UTAUT2



Structural Model (ns = non-significant, +p < 0.10, \* p < 0.05, \*\*p < 0.01, \*\*\* p < 0.001, R<sup>2</sup> = Variance Explained)

# Effort Expectancy, Social Influence

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- Contrary to previous research, effort expectancy ( $\beta=0.06$ ,  $p>0.05$ ) and social influence ( $\beta=0.01$ ,  $p>0.05$ ) are not significantly related to behavioural intentions.
- eGov websites have few functionalities
- its use among the population is very limited.
- Few respondents have employed eGov websites to complete transactions and thus they are not able to comment on its ease of use.
- Limited uptake of eGov services, few eGov users
- Critical mass or network externalities could not be established.

# Critical Mass, Peer Externalities

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- As the number of users reaches a critical point,
  - Causes external benefits such as an increase in users or service offerings and thus attracting more users.
- As a critical pool of users have been achieved, the number of eGov services will increase
  - Enticing other users to adopt the service.
- The more the numbers of users and availability of complementary goods or services, the more value the users will gain from the service (Lin & Lu, 2011).

# Perceived awareness, perceived value

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- Perceived awareness ( $\beta=0.13$ ,  $p<0.10$ ) and perceived value ( $\beta=0.18$ ,  $p<0.10$ ) are marginally significant behavioural intention.
- lack of information about the online services
- lack of information on the concrete benefits to the citizens

Citizens are unaware of the different online services available and thus do not perceived the trade-offs between benefits and monetary value of using eGov services.

Citizens do not perceive that using eGov will incur any monetary savings to them as they are more accustomed to using traditional government offices.

# Recommendations

To increase the uptake of eGov service:

- Proper marketing and communication mechanisms should be put in place.
- Increase awareness services available to citizens. Concerted eGov awareness campaign.

If citizens will not be able to determine the value that such a service would bring them, thus mostly likely to reject eGov services.

- Lack of awareness is argued to be among one of the factors that inhibit the adoption of eGov services (Zhao et al. 2012).

# Recommendations

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- Targeted 18 to 39 years old first
- Focus on obtaining at least a critical mass of users in the first instance
- Researchers from different countries investigating eGov agree that the basic value of eGov services should be focused on the citizens (Shareef et al., 2011).
- Consultation with citizens.

# Computer self-efficacy

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A negative relationship with behavioural intention ( $\beta = -0.24$ ,  $p < 0.01$ ).

- Factors such as information quality and website design that affect ease of use may explain the negative relationship with behavioural intention.
- Citizens may be reluctant to adopt eGov services if :
  - the website is too complicated to use,
  - wrong design principles were used
  - the information provided is not up-to date.
- Abu Shanab (2014) argues that the citizens' intention to adopt eGov increases with attractive and well organised eGov websites.

# Recommendations

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- Government authorities should rethink their eGov websites design
- Visual appeal is significantly related to intention to use eGov (Gilbert et al. 2004).
- Simplified Websites as easy as to use as possible,
- Proper feedback mechanism should be implemented to inform citizens of the status of their applications.
- Dashboard
- Citizens' intention to use eGov services will increase with an increase in the quality of the service provided (Khan et al., 2012).

# Resistance to Change

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- Negatively related to behavioural intention ( $\beta = -0.18, p < 0.05$ ).
- Resistance to change is an important inhibitor of eGov uptake in a pre-adoption phase.
- Fear, apprehensions from using eGov (Anxiety)
- Training, cyber-caravan, IC3, Increase Trust, Website Design

# Trust in Internet/ Government

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- Trust in the internet has a negative significant relationship with resistance to change ( $\beta = -0.43$ ,  $p < 0.001$ ).
- Perceived trust in the internet has a positive significant relationship with behavioural intention over and above that of resistance to change ( $\beta = 0.25$ ,  $p < 0.01$ ).
- Increasing trust in the internet over secured connections that respects the privacy of citizens would help reduce resistance to adopting eGov services.
- On the other end, trust in government is non-significant with behavioural intention ( $\beta = -0.08$ ,  $p > 0.05$ ).

# Recommendations

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- Trust in the internet is strongly related to citizens forming their intention to adopt eGov services.
- Reinforce such feelings by ensuring that the security, privacy and confidentiality concerns of citizens are met. Reduce Risk, Ensure Non-repudiation, Information Integrity
- Two step authentication techniques could be implemented before transactions are confirmed.
- Trust in government is not related to behavioural intention.
- Government should improve its image.
- Institutional credibility has been argued to be an important step in building trust (Carter and Belanger 2005).

□ Thank You